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Canova, Judy

From: Linnear, David
Sent: Tuesday, March 13, 2018 11:53 AM
To: Morris, James
Subject: FW: USEPA Oversight Billing for Pristine Trust -attorney client privilege
Attachments: Rational for Addtional Review.pdf

Here you are Jim. This response supplies background and conclusion. I'd only add that I decided to follow Dave Wilson's recommendation because SSPA (nationally recognized experts) provided a review for a complexed groundwater system.

Please call if you have any questions.
David

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: March 12, 2018
SUBJECT: Rational for Contractor Review of Monitored Natural Attenuation Pilot Program Data Evaluation
FROM: David Wilson, Geologist, RRS #4
TO: David Linnear, RPM

U.S. EPA Region 5 completed its review of the MNA Pilot Program Data Evaluation Interim Report in January 27, 2017. EPA recommended discontinuing the Pilot Program and continuing the selected remedy of groundwater because the Pilot Program has not demonstrated MNA is occurring sufficiently. EPA also noted within the offsite plume area, groundwater has a persistent southeast gradient flow direction. The highest concentration portion of the plume, occurred along a line of wells on the eastern most boundary of the monitoring network. However, the plume was flowing east outside of the monitoring well network, not migrating southwest, down the southwest line of wells (shifting off-axis to the east of the system), as they monitoring system was designed. In this offsite high concentration plume area, east of the system, there are no wells which can monitor changes in concentration in 1,2-DCA.

In an April 21, 2017 letter, the Pristine Trust disagreed with the agency's conclusions. Based on their consultant's (GHD) evaluation of monitoring data collected since the initiation of the MNA Pilot Program, the Pristine Trust still believe that "MNA is the most effective means of addressing the residual VOCs in groundwater in the off-Site plume". The Pristine Trust was concerned that "EPA's recommendation did not consider *the technical issues presented* in previous reports and correspondence. Specifically, the presence of VOC contamination caused by other sources, not related to the Pristine Site, has and continues to pose a threat to the Pristine groundwater extraction and treatment system." The Pristine Trust agreed that *localized flow patterns* (caused by persistent flow in the southeast gradient direction) within the offsite plume area does occur. However, they concluded that the network of monitoring wells and piezometers is still adequate to monitor the groundwater.

The January 27, 2017 EPA Region 5 technical review did evaluate whether VOC contamination (specifically from GE,) had encroached into the Pristine Pump and Treat system while it was operating, but concluded there was no supporting evidence of VOC encroachment.

In order to more completely address the issues that the Pristine Trust requested to be evaluated, Region 5 determined that additional technical review capabilities were warranted and contracted with SSPA, a hydrogeologic environmental consultant specialist. This additional review included a thorough evaluation of the all of "the technical issues presented in previous reports and correspondence" raised by the Pristine Trust; a thorough evaluation to determine if VOC contamination had encroached into the Pristine Pump and Treat system while it was operating (as requested by the Pristine Trust); an independent evaluation the progress of the MNA; an independent evaluation of the Pristine Trust conclusion that the network of monitoring wells and piezometers is still adequate to monitor the groundwater; a thorough investigation of any impact on the Pristine offsite plume area of pumping at the City of Wyoming well field. Specifically, the SSPA Additional Technical Review included, advanced groundwater gradient mapping techniques, advanced groundwater contaminant concentration mapping techniques, advanced groundwater statistical analysis, and plume analysis using previously developed groundwater flow model.